

**ABSTRACT**

A pixelated detector for obtaining images of an object has pixels whose outlines are different. These can be used to achieve improved resolution in use of the detector. To achieve improved resolution, the detector can be moved in 5 relation to the object, so that pixels having smaller dimensions supplement the data obtained with larger pixels. To optimise selection and use of the detector, there may be a priori image information and improved resolution can be obtained without the relative movement.